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Subject: Bracing and internal volume question?

Posted by [Paul](#) on Tue, 04 Mar 2003 13:24:49 GMT

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If in the vented box of 50lt, you place three vertical braces thickness 3/4", and two horizontal braces (full sheets with 2.5" holes) how much would you loose in internal volume? I just did that, and result was devastating! Bass was virtualy GONE! I ripped all out and realised i had to compensate in size of the box! But for how much? Thanks to friendliest forum around! Paul current size: 24 x 16 1/2 x 11 11/2 Thanks again!

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Subject: Re: Bracing and internal volume question?

Posted by [mollecon](#) on Tue, 04 Mar 2003 17:12:21 GMT

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Hmmm - that sounds a bit strange to me! Though the bracing do take up some volume & one basically should take that into consideration when calculating the final internal dimensions (as well as the volume taken up by drivers/horns, & any reflex tunnel) - it does sound strange that you experienced such a dramatic change in the bass. Now, you didn't give the thickness of the horizontal sheets (with holes) used for bracing - nevertheless, I doubt that you lost more volume than a few liters... It's not difficult to calculate the total volume of the added material - but I think you might be surprised about how little space it really takes up. One explanation could be that the holes in the bracing sheets are too few or small to permit the free flow of air at the basic resonance - that could mute the bass quite a bit. A more 'gloomy' explanation could be that the bracing actually did it's job, & the lack of box resonances in the mid/upper bass area have simply given you a more clean bass! But also less of it cos the resonances are gone... If this is the case, you might need to retune the box to get more bass. The problem here is, that a reduction of the volume (as a result of the added material) would normally lead to a higher total 'Q' for the box - which should give MORE bass, in terms of perceived sound.

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Subject: Re: Bracing and internal volume question?

Posted by [Paul](#) on Tue, 04 Mar 2003 19:57:57 GMT

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Thanks for your help. However here are the box drawings with its current bracing. I think it's insufficient!

Subject: try agin  
Posted by [Paul](#) on Tue, 04 Mar 2003 19:59:17 GMT  
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here is the link

<http://www.users.nac.net/markowitzgd/david/wapcabinet.htm>

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